

ABSTRACT

A wireless network is provided with a method to eliminate the commonly encountered problems associated with the development of the master timing in a network. According to the provided method, the master network timing is completely eliminated. Accordingly, in an exemplary implementation of the present invention, each node of a network has its own master clock used for transmissions that is free running and not adjusted in any way. Each node has also a receiver equipped with a mechanism to acquire and track the timing of all the network nodes that are within the communications range and that are permitted the access. In essence there is no master network timing and each transmitter hops and transmits according to its master clock. Furthermore, it is the responsibility of each receiver to track multiple timing separately for each hopping transmitter. The provided method is suitable for a wide range of applications including wireless networks and in particular for networks using frequency hopping.